



State of California  
Department of Fish and Game

## Memorandum

Date: November 29, 2011

To: Carl Wilcox  
Regional Manager, Region 3  
California Dept of Fish and Game

From: Randall Baxter  
Senior Biologist  
California Dept of Fish and Game

Subject: Fall Midwater Trawl November fish abundance and distribution

The 2011 November Fall Midwater Trawl (FMWT) survey was conducted from November 7 through November 21, 2011. We report total catch from index stations and November abundance index by species and plot the summed September through November abundance indices by species for all years for comparison (Figures 1-5). Species distributions are reported as total monthly catch by region (Figure 6). The indices reported represent the first 3 of the 4 monthly survey indices (September through December) that when summed comprise the annual FMWT indices. The annual FMWT indices are used to monitor species abundance trends through time.

### **Delta Smelt**

Twenty-three delta smelt were collected in November for a monthly index of 23. The summed September through November index (127) is the highest index since 2003, a considerable increase from the past seven years of September-November indices (Figure 1).

Delta smelt were collected at index stations in Carquinez Strait (n=1), Suisun Bay (n=2), Grizzly Bay (n=1), Montezuma Slough (n=10), Honker Bay (n=3), the confluence area (n=1), and lower Sacramento River (n=5). An additional 17 delta smelt were collected at non-index stations in the Sacramento Deep Water Ship Channel.

### **Age-0 Striped Bass**

Twenty-three age-0 striped bass were collected in November producing a monthly index of 30. The summed September through November index (204) is the highest since 2006 (Figure 2).

Age-0 striped bass were collected at index stations in San Pablo Bay (n=1), Carquinez Strait (n=3), Suisun Bay (n=9), Grizzly Bay (n=3), Montezuma Slough (n=1), the confluence area (n=2), and lower Sacramento (n=3) and San Joaquin (n=1) rivers. An additional 4 age-0 striped bass were collected at non-index stations in Cache Slough (n=2) and Sacramento Deep Water Ship Channel (n=2).

### **Longfin Smelt**

Seventy-four longfin smelt were collected in November for a monthly index of 92. The summed September through November index (176) is the highest since 2006 (Figure 3).

Longfin smelt were collected at index stations in San Pablo (n=7), Suisun (n=8) and Grizzly (n=5) bays, Montezuma Slough (n=3), Honker Bay (n=1), the confluence area (n=43), and lower Sacramento (n=6) and San Joaquin (n=1) rivers. No longfin smelt have been captured at any non-index stations this year.

### **Threadfin Shad**

Thirty-five threadfin shad were collected in November producing a monthly index of 52. The summed September through November index (139) is the third lowest in FMWT history (Figure 4).

Threadfin shad were collected in San Pablo Bay (n=2), Honker Bay (n=4), the confluence area (n=14), lower Sacramento (n=5) and San Joaquin (n=7) rivers and south Delta (n=3). In addition, one-thousand three hundred and two threadfin shad were collected at non-index stations in Cache Slough (n=168) and Sacramento Deep Water Ship Channel (n=1134).

### **American Shad**

Eighty-one American shad were collected in November producing a monthly index of 141. The summed September through November index (758) is the highest since 2006 (Figure 5).

American shad were collected in San Pablo Bay (n=10), Carquinez Strait (n=11), Suisun Bay (n=19), Montezuma Slough (n=2), Honker Bay (n=3), the confluence area (n=4), lower Sacramento (n=19) and San Joaquin (n=8) rivers, and south Delta (n=5). An additional sixty-five American shad were collected at non-index stations in Cache Slough (n=45) and Sacramento Deep Water Ship Channel (n=20).

cc: DFG  
Marty Gingras, Supervising Biologist  
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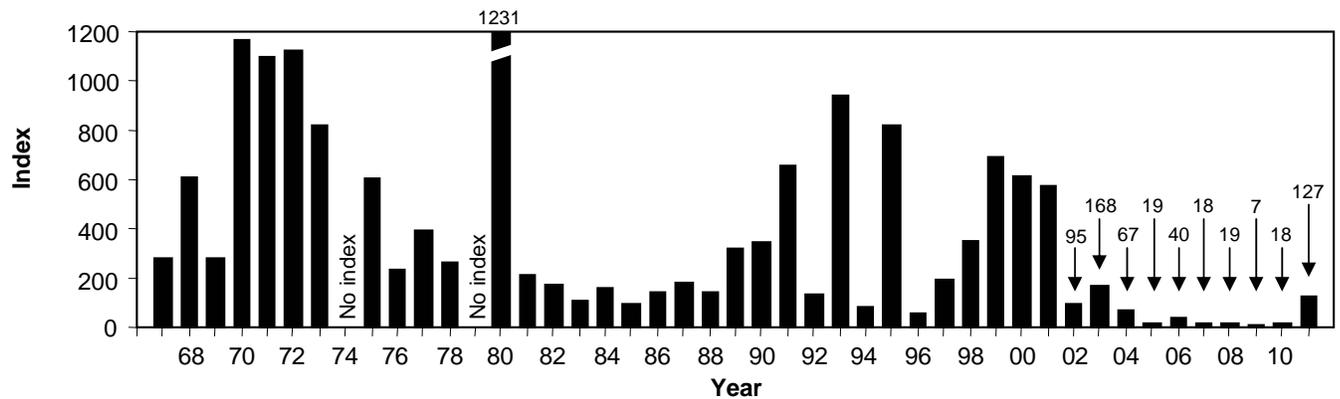


Figure 1. FMWT summed September through November delta smelt abundance indices.

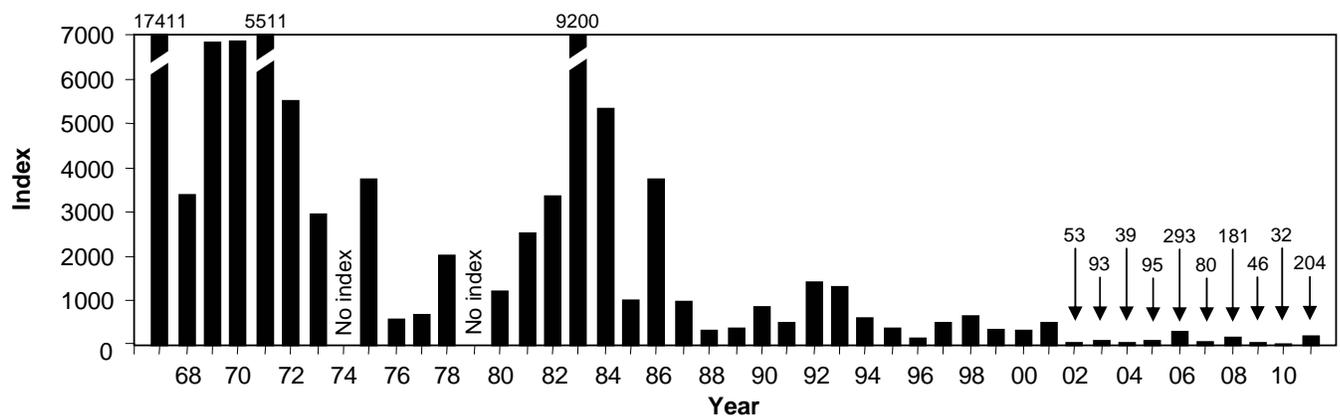


Figure 2. FMWT summed September through November age-0 striped bass abundance indices.

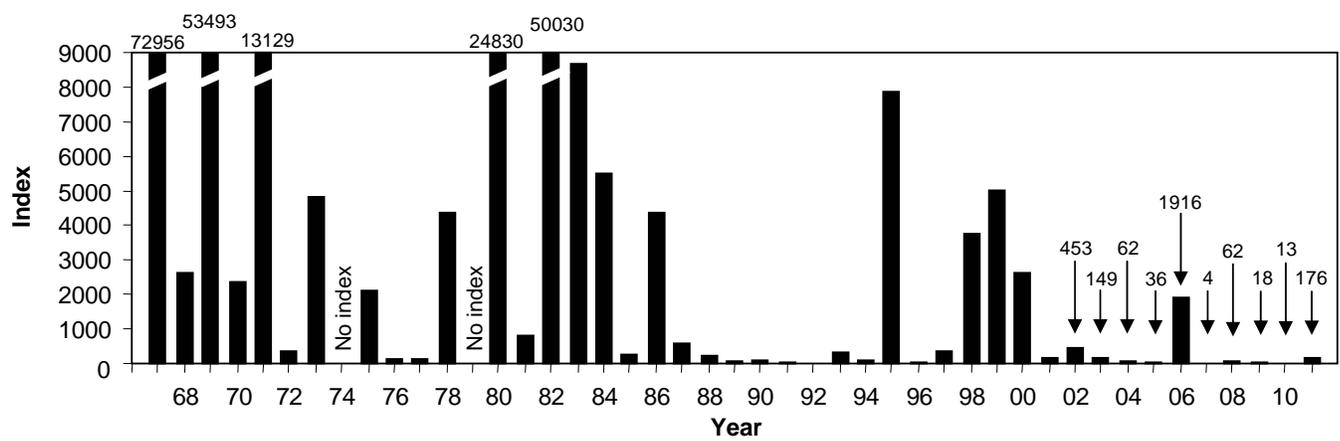


Figure 3. FMWT summed September through November longfin smelt abundance indices.

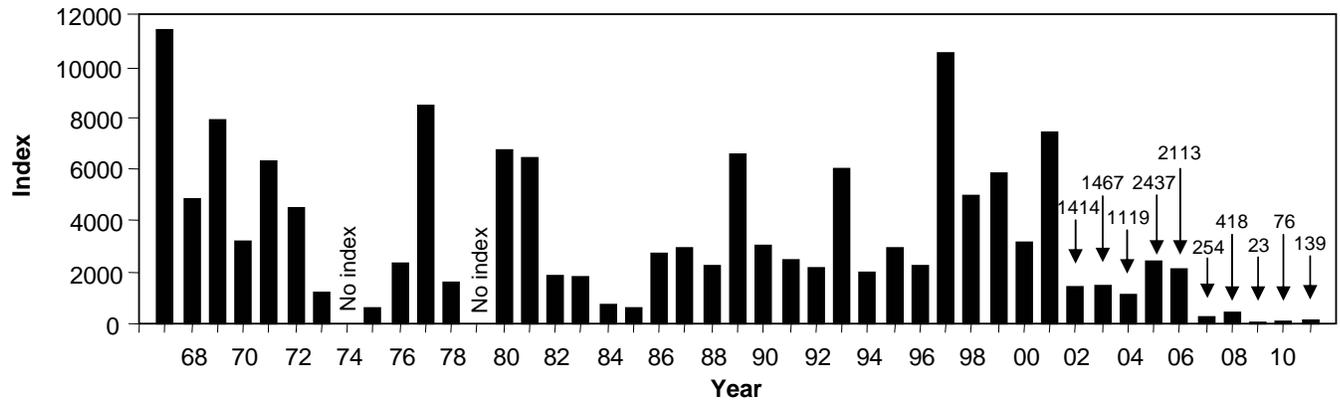


Figure 4. FMWT summed September through November threadfin shad abundance indices.

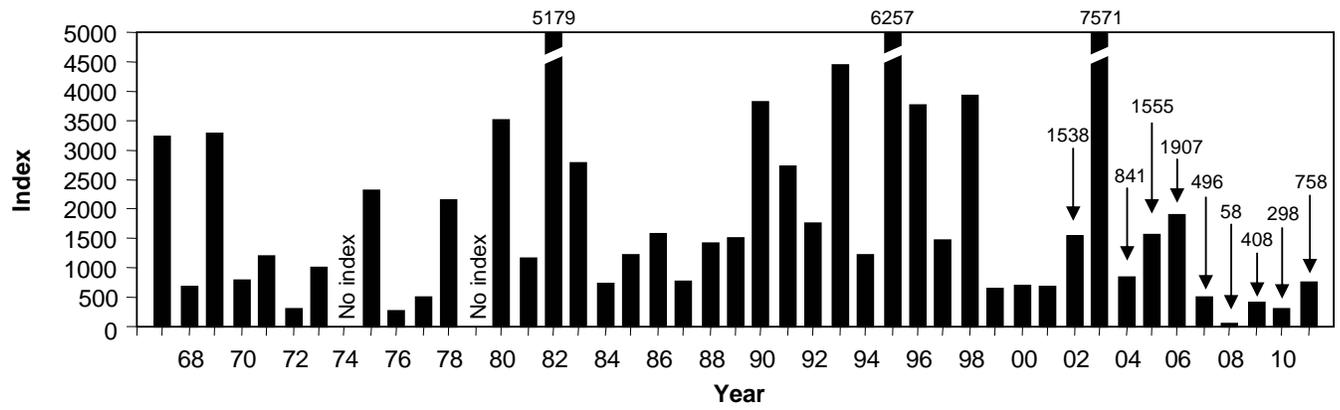


Figure 5. FMWT summed September through November American shad abundance indices.

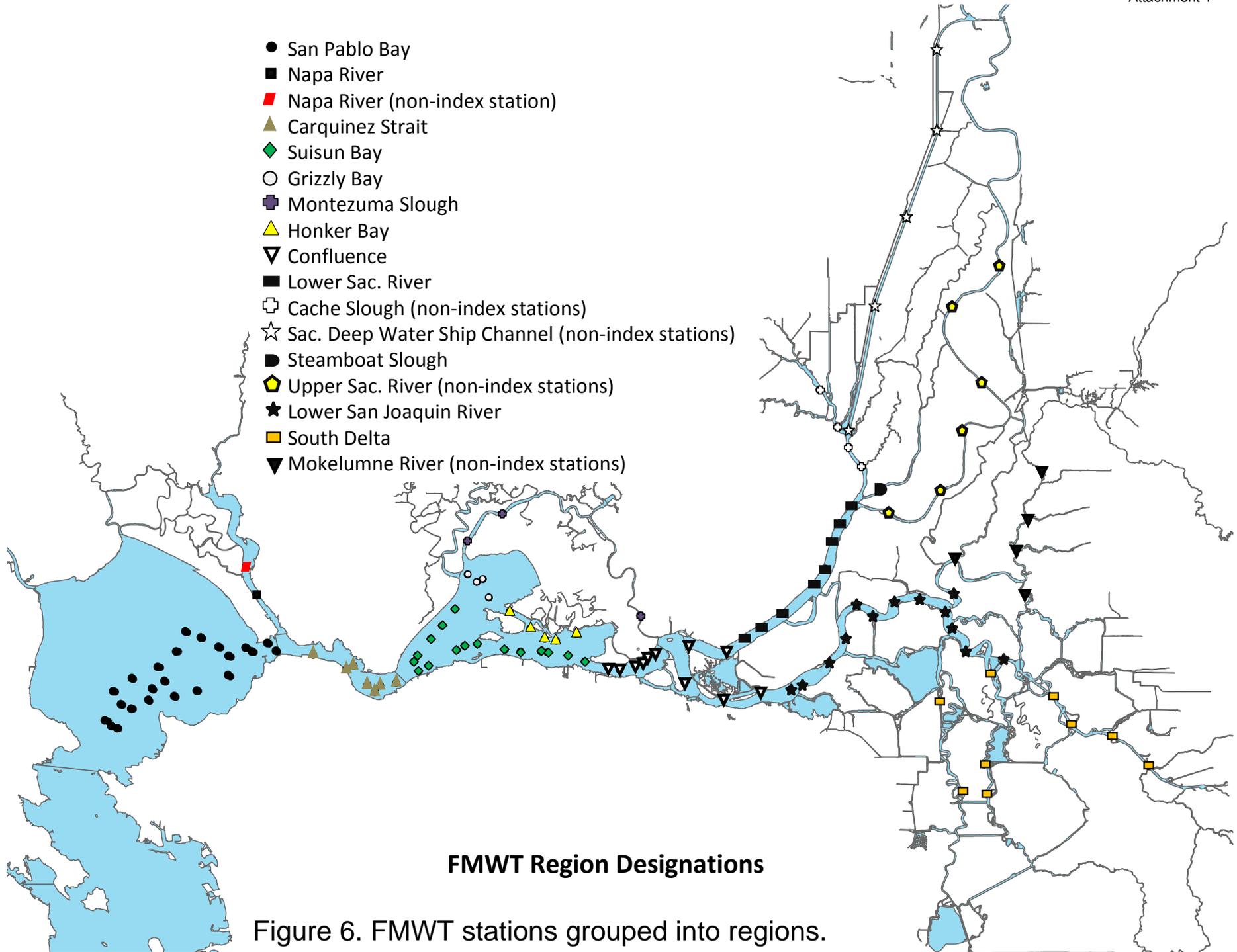


Figure 6. FMWT stations grouped into regions.